APPENDIX

E

The Effects of Automatic Stabilizers on the Federal Budget as of 2014

During recessions, federal tax liabilities and, therefore, revenues decline automatically with the reduction in output and income. In addition, some federal outlays—to pay unemployment insurance benefits, for example—automatically increase. Such reductions in revenues and increases in outlays—known as automatic stabilizers—help bolster economic activity during downturns, but they also temporarily increase the federal budget deficit. Conversely, when real (inflation-adjusted) gross domestic product (GDP) moves up closer to the maximum sustainable output of the economy (termed potential GDP), revenues automatically rise and outlays automatically fall. Under those circumstances, automatic stabilizers provide a smaller boost to economic activity. (Those effects of automatic stabilizers are in addition to the effects of any legislated changes in tax and spending policies.)

The Congressional Budget Office (CBO) uses statistical techniques to estimate the automatic effects of the business cycle on federal revenues and outlays and, thus, on federal budget deficits. According to CBO's estimates, automatic stabilizers added significantly to the budget deficit—and thereby substantially strengthened economic activity relative to what it would have been otherwise—in fiscal years 2009 through 2013. On the basis of CBO's economic and budgetary projections under current law, the agency expects that automatic stabilizers will continue to add significantly to the budget deficit and to support economic activity in 2014 but that their effects on the budget and the economy will decline substantially from 2015 through 2017 in response to improving economic conditions. For the period from 2018 to 2024, CBO projects that GDP will fall slightly short of potential GDP, on average, after the economy has recovered from the recent economic downturn. (For discussion of CBO's economic projections, see Chapter 2.) As a result, CBO projects that automatic stabilizers will slightly lower revenues and raise federal spending during that period, providing a small boost to demand for goods and services but also raising budget deficits (and thereby crowding out some private investment).

How Large Were the Budgetary Effects of Automatic Stabilizers Last Year?

In fiscal year 2013, CBO estimates, automatic stabilizers added $277 billion to the federal budget deficit, an amount equal to 1.6 percent of potential GDP (see Table E-1 and Table E-2).[1] That outcome marked the fifth consecutive year that automatic stabilizers added to the deficit by an amount equal to or exceeding 1.6 percent of potential GDP, a magnitude that had previously been equaled or exceeded only twice in the past 50 years, in fiscal years 1982 and 1983 (see Figure E-1 on page 140). (Those historical calculations, as well as the

1. CBO's estimates of the automatic stabilizers reflect the assumption that discretionary spending and interest payments do not respond automatically to the business cycle. For a description of a methodology for estimating automatic stabilizers that is similar to CBO's methodology, see Darrel Cohen and Glenn Follette, "The Automatic Fiscal Stabilizers: Quietly Doing Their Thing," *Economic Policy Review*, Federal Reserve Bank of New York, vol. 6, no. 1 (April 2000), pp. 35–68, http://tinyurl.com/pcxcohz. See also Glenn Follette and Byron Lutz, *Fiscal Policy in the United States: Automatic Stabilizers, Discretionary Fiscal Policy Actions, and the Economy*, Finance and Economics Discussion Series Paper 2010–43 (Board of Governors of the Federal Reserve System, June 2010), http://tinyurl.com/nl6qc6e.

Table E-1.

Deficit or Surplus With and Without Automatic Stabilizers, and Related Series, in Billions of Dollars

	Deficit (-) or Surplus With Automatic Stabilizers	−	Automatic Stabilizers	=	Deficit (-) or Surplus Without Automatic Stabilizers	Revenues and Outlays Without Automatic Stabilizers: Revenues	Revenues and Outlays Without Automatic Stabilizers: Outlays	GDP Gap[a]	Unemployment Gap (Percent)[b]
						Actual			
1964	-6		1		-7	112	119	3	-0.1
1965	-1		4		-5	114	119	11	-0.7
1966	-4		11		-15	121	136	37	-1.7
1967	-9		12		-21	139	160	36	-2.0
1968	-25		11		-36	145	181	33	-2.0
1969	3		14		-11	176	187	38	-2.4
1970	-3		6		-9	190	198	15	-1.9
1971	-23		-3		-20	191	211	-7	-0.2
1972	-23		-2		-22	209	231	*	-0.1
1973	-15		12		-27	221	247	40	-0.9
1974	-6		10		-16	256	272	25	-1.2
1975	-53		-20		-33	296	329	-62	1.2
1976	-74		-24		-49	317	366	-59	1.8
1977	-54		-14		-40	366	406	-36	1.1
1978	-59		-1		-59	400	459	-6	**
1979	-41		7		-48	458	506	10	-0.4
1980	-74		-21		-53	535	588	-68	0.6
1981	-79		-33		-46	627	673	-77	1.2
1982	-128		-70		-58	678	736	-215	3.0
1983	-208		-89		-119	679	798	-253	4.1
1984	-185		-35		-151	698	849	-95	1.8
1985	-212		-17		-195	747	943	-49	1.2
1986	-221		-11		-210	777	987	-34	1.0
1987	-150		-15		-135	869	1,004	-49	0.4
1988	-155		4		-159	908	1,066	8	-0.3
1989	-153		19		-171	975	1,147	51	-0.7
1990	-221		9		-230	1,024	1,254	21	-0.5
1991	-269		-55		-214	1,105	1,318	-171	0.8
1992	-290		-70		-220	1,150	1,371	-179	1.7
1993	-255		-61		-194	1,208	1,402	-169	1.5
1994	-203		-47		-156	1,302	1,457	-126	0.9
1995	-164		-39		-125	1,389	1,514	-118	0.3
1996	-107		-39		-68	1,491	1,559	-111	0.2
1997	-22		-8		-14	1,588	1,602	-15	**
1998	69		24		45	1,702	1,657	63	-0.5
1999	126		73		53	1,761	1,708	193	-0.7

Continued

Table E-1. **Continued**

Deficit or Surplus With and Without Automatic Stabilizers, and Related Series, in Billions of Dollars

	Deficit (-) or Surplus With Automatic Stabilizers	−	Automatic Stabilizers	=	Deficit (-) or Surplus Without Automatic Stabilizers	Revenues and Outlays Without Automatic Stabilizers: Revenues	Revenues and Outlays Without Automatic Stabilizers: Outlays	GDP Gap[a]	Unemployment Gap (Percent)[b]
					Actual (Continued)				
2000	236		118		118	1,916	1,797	299	-1.0
2001	128		54		74	1,940	1,866	105	-0.7
2002	-158		-44		-114	1,888	2,002	-130	0.7
2003	-378		-87		-290	1,859	2,149	-250	1.0
2004	-413		-42		-371	1,917	2,288	-108	0.6
2005	-318		-1		-318	2,154	2,471	4	0.2
2006	-248		26		-274	2,385	2,659	63	-0.3
2007	-161		6		-166	2,568	2,734	-8	-0.5
2008	-459		-67		-391	2,583	2,974	-220	0.3
2009	-1,413		-329		-1,083	2,371	3,455	-1037	3.5
2010	-1,294		-373		-922	2,467	3,389	-1024	4.6
2011	-1,300		-342		-957	2,586	3,544	-963	3.9
2012	-1,087		-281		-806	2,688	3,494	-800	3.0
2013	-680		-277		-403	3,019	3,422	-806	2.2
					Projected				
2014	-514		-261		-253	3,268	3,521	-723	1.4
2015	-478		-198		-281	3,485	3,766	-498	1.1
2016	-539		-111		-428	3,581	4,009	-267	0.7
2017	-581		-51		-529	3,675	4,204	-119	0.4
2018	-655		-38		-617	3,803	4,419	-102	0.3
2019	-752		-40		-712	3,967	4,679	-106	0.3
2020	-836		-43		-793	4,141	4,933	-111	0.3
2021	-912		-45		-867	4,327	5,194	-116	0.3
2022	-1,031		-47		-984	4,531	5,515	-120	0.3
2023	-1,047		-49		-997	4,745	5,742	-125	0.3
2024	-1,074		-52		-1,022	4,971	5,993	-131	0.3

Sources: Congressional Budget Office; Office of Management and Budget.

Notes: Automatic stabilizers are automatic changes in revenues and outlays that are attributable to cyclical movements in real (inflation-adjusted) output and unemployment.

GDP = gross domestic product; * = between -$500 million and zero; ** = between -0.05 percent and 0.05 percent.

a. The GDP gap equals actual or projected GDP minus potential GDP (CBO's estimate of the maximum sustainable output of the economy).

b. The unemployment gap equals the actual or projected rate of unemployment minus the underlying long-term rate of unemployment.

Table E-2.

Deficit or Surplus With and Without Automatic Stabilizers, and Related Series, as a Percentage of Potential Gross Domestic Product

	Deficit (-) or Surplus With Automatic Stabilizers	–	Automatic Stabilizers	=	Deficit (-) or Surplus Without Automatic Stabilizers	Revenues and Outlays Without Automatic Stabilizers: Revenues	Revenues and Outlays Without Automatic Stabilizers: Outlays	GDP Gap[a]	Unemployment Gap (Percent)[b]
						Actual			
1964	-0.9		0.1		-1.0	17.0	18.0	0.5	-0.1
1965	-0.2		0.5		-0.7	16.3	17.0	1.6	-0.7
1966	-0.5		1.5		-2.0	16.3	18.3	4.9	-1.7
1967	-1.1		1.5		-2.6	17.4	19.9	4.5	-2.0
1968	-2.9		1.2		-4.2	16.7	20.9	3.8	-2.0
1969	0.3		1.5		-1.1	18.7	19.8	4.0	-2.4
1970	-0.3		0.6		-0.9	18.3	19.2	1.4	-1.9
1971	-2.0		-0.3		-1.7	17.0	18.7	-0.6	-0.2
1972	-1.9		-0.1		-1.8	17.1	18.9	*	-0.1
1973	-1.1		0.9		-2.0	16.8	18.8	3.0	-0.9
1974	-0.4		0.7		-1.1	17.5	18.6	1.7	-1.2
1975	-3.2		-1.2		-2.0	17.7	19.7	-3.7	1.2
1976	-4.0		-1.3		-2.7	17.2	19.8	-3.2	1.8
1977	-2.6		-0.7		-1.9	17.7	19.7	-1.7	1.1
1978	-2.6		*		-2.6	17.5	20.1	-0.2	*
1979	-1.6		0.3		-1.9	17.9	19.8	0.4	-0.4
1980	-2.6		-0.7		-1.9	18.7	20.5	-2.4	0.6
1981	-2.5		-1.0		-1.4	19.5	20.9	-2.4	1.2
1982	-3.6		-2.0		-1.6	19.2	20.9	-6.1	3.0
1983	-5.5		-2.3		-3.1	17.9	21.0	-6.7	4.1
1984	-4.6		-0.9		-3.7	17.2	21.0	-2.3	1.8
1985	-4.9		-0.4		-4.5	17.3	21.8	-1.1	1.2
1986	-4.8		-0.2		-4.6	17.0	21.6	-0.7	1.0
1987	-3.1		-0.3		-2.8	18.0	20.8	-1.0	0.4
1988	-3.0		0.1		-3.1	17.6	20.7	0.1	-0.3
1989	-2.8		0.3		-3.1	17.7	20.8	0.9	-0.7
1990	-3.8		0.2		-3.9	17.4	21.3	0.4	-0.5
1991	-4.3		-0.9		-3.4	17.6	21.0	-2.7	0.8
1992	-4.4		-1.1		-3.3	17.4	20.7	-2.7	1.7
1993	-3.7		-0.9		-2.8	17.3	20.1	-2.4	1.5
1994	-2.8		-0.6		-2.1	17.8	19.9	-1.7	0.9
1995	-2.1		-0.5		-1.6	18.0	19.7	-1.5	0.3
1996	-1.3		-0.5		-0.8	18.4	19.3	-1.4	0.2
1997	-0.3		-0.1		-0.2	18.7	18.9	-0.2	*
1998	0.8		0.3		0.5	19.1	18.6	0.7	-0.5
1999	1.3		0.8		0.6	18.9	18.3	2.1	-0.7

Continued

Table E-2. **Continued**

Deficit or Surplus With and Without Automatic Stabilizers, and Related Series, as a Percentage of Potential Gross Domestic Product

	Deficit (-) or Surplus With Automatic Stabilizers	−	Automatic Stabilizers	=	Deficit (-) or Surplus Without Automatic Stabilizers	Revenues and Outlays Without Automatic Stabilizers: Revenues	Revenues and Outlays Without Automatic Stabilizers: Outlays	GDP Gap[a]	Unemployment Gap (Percent)[b]
						Actual (Continued)			
2000	2.4		1.2		1.2	19.4	18.2	3.0	-1.0
2001	1.2		0.5		0.7	18.5	17.8	1.0	-0.7
2002	-1.4		-0.4		-1.0	17.2	18.2	-1.2	0.7
2003	-3.3		-0.8		-2.5	16.0	18.6	-2.2	1.0
2004	-3.4		-0.3		-3.0	15.7	18.8	-0.9	0.6
2005	-2.5		*		-2.5	16.7	19.2	*	0.2
2006	-1.8		0.2		-2.0	17.5	19.5	0.5	-0.3
2007	-1.1		*		-1.2	17.9	19.1	-0.1	-0.5
2008	-3.1		-0.4		-2.6	17.2	19.9	-1.5	0.3
2009	-9.1		-2.1		-7.0	15.3	22.4	-6.7	3.5
2010	-8.2		-2.4		-5.8	15.6	21.4	-6.5	4.6
2011	-7.9		-2.1		-5.9	15.8	21.7	-5.9	3.9
2012	-6.4		-1.7		-4.8	15.9	20.7	-4.7	3.0
2013	-3.9		-1.6		-2.3	17.3	19.6	-4.6	2.2
						Projected			
2014	-2.9		-1.5		-1.4	18.2	19.6	-4.0	1.4
2015	-2.6		-1.1		-1.5	18.7	20.2	-2.7	1.1
2016	-2.8		-0.6		-2.2	18.5	20.7	-1.4	0.7
2017	-2.9		-0.3		-2.6	18.2	20.8	-0.6	0.4
2018	-3.1		-0.2		-2.9	18.1	21.0	-0.5	0.3
2019	-3.4		-0.2		-3.2	18.1	21.3	-0.5	0.3
2020	-3.6		-0.2		-3.5	18.1	21.5	-0.5	0.3
2021	-3.8		-0.2		-3.6	18.1	21.8	-0.5	0.3
2022	-4.1		-0.2		-4.0	18.2	22.2	-0.5	0.3
2023	-4.0		-0.2		-3.8	18.3	22.2	-0.5	0.3
2024	-4.0		-0.2		-3.8	18.4	22.2	-0.5	0.3

Sources: Congressional Budget Office; Office of Management and Budget.

Notes: Automatic stabilizers are automatic changes in revenues and outlays that are attributable to cyclical movements in real (inflation-adjusted) output and unemployment.

GDP = gross domestic product; * = between -0.05 percent and 0.05 percent.

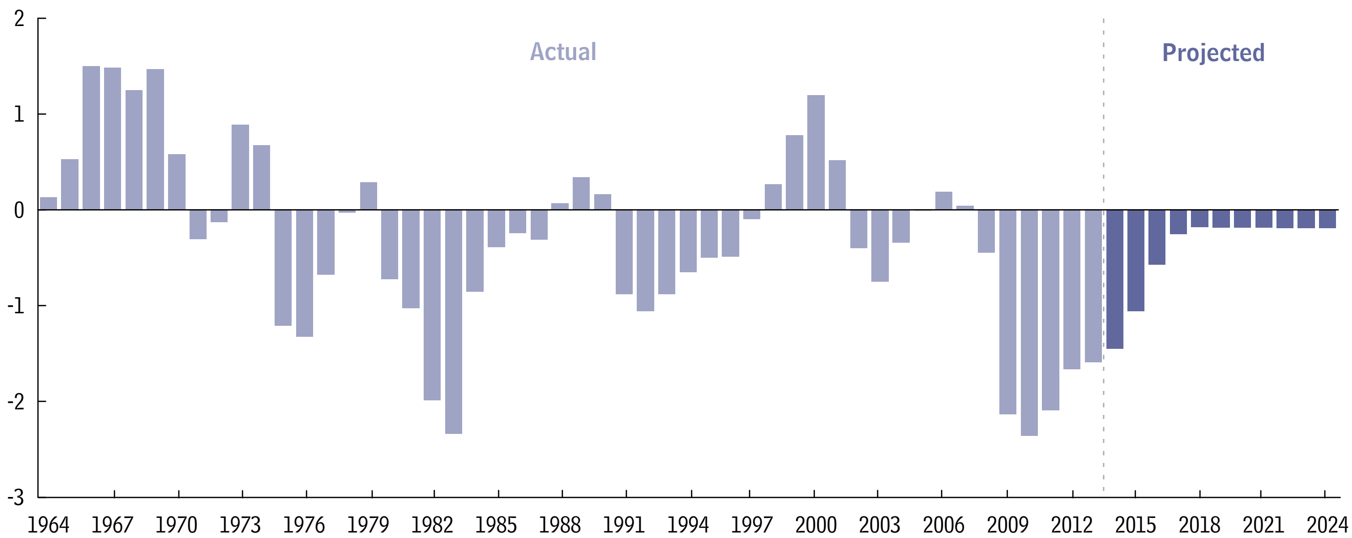
a. The GDP gap equals actual or projected GDP minus potential GDP (CBO's estimate of the maximum sustainable output of the economy).

b. The unemployment gap equals the actual or projected rate of unemployment minus the underlying long-term rate of unemployment.

Figure E-1.

Contribution of Automatic Stabilizers to Budget Deficits and Surpluses

(Percentage of potential gross domestic product)



Sources: Congressional Budget Office; Office of Management and Budget.

Notes: Automatic stabilizers are automatic changes in revenues and outlays that are attributable to cyclical movements in real (inflation-adjusted) output and unemployment.

Potential gross domestic product is CBO's estimate of the maximum sustainable output of the economy.

projections presented below, involve potential GDP rather than actual GDP because potential GDP excludes fluctuations that are attributable to the business cycle.)[2]

How Large Will the Budgetary Effects of Automatic Stabilizers Be Over the Next Decade?

According to CBO's projections under current law, the contribution of automatic stabilizers to the federal budget deficit, measured as a share of potential GDP, will fall slightly in fiscal year 2014, to 1.5 percent. That contribution accounts for a bit more than half of the estimated deficit this year. The contribution will decline to 1.1 percent of potential GDP in 2015, accounting for less than half of the projected deficit.

CBO expects that the budgetary effects of automatic stabilizers will remain significant this year, largely because of the continued—albeit diminishing—weakness in the economy. Specifically, CBO projects that the gap between actual and potential GDP will amount to about 4 percent of potential GDP in fiscal year 2014, compared with gaps of roughly 4½ percent in 2012 and 2013.

The contribution of the automatic stabilizers to the budget deficit is projected to decline significantly in 2015, 2016, and 2017, as the output gap narrows. That contribution is then projected to flatten at 0.2 percent of potential GDP in 2018 and later years. On the basis of historical experience, CBO projects that GDP will be one-half percent below potential GDP, on average, after the economy has recovered from the recent economic downturn (although in any particular year the gap could be larger or smaller than one-half percent). As a result,

2. CBO's previous estimates of the automatic stabilizers were published in March 2013. Revisions to CBO's estimates since last March stem from the July 2013 comprehensive revisions of the national income and product accounts by the Bureau of Economic Analysis, changes to the agency's economic projections, and technical improvements in the agency's estimating approach. Those revisions are generally small before 2001 and larger after that; the revisions for 2012 through 2015 are especially large because the comprehensive revision led CBO to significantly reduce its estimate of the shortfall of actual GDP relative to potential GDP in 2012 and 2013, and thereby to its projection of that shortfall during the next few years.

CBO projects that the automatic stabilizers will continue to raise budget deficits through the 10-year projection period.[3]

How Large Will Budget Deficits Without Automatic Stabilizers Be Over the Next Decade?

The federal budget deficit or surplus with the effects of automatic stabilizers filtered out is an estimate of what the deficit or surplus would be if GDP was at its potential, the unemployment rate was at a corresponding level, and all other factors were unchanged. (The "budget deficit without automatic stabilizers" has also been referred to as the "cyclically adjusted deficit" or "structural deficit.") That measure, when compared with the budget deficit with automatic stabilizers, helps analysts evaluate the extent to which changes in the budget deficit or surplus are caused by cyclical developments in the economy and thus are likely to prove temporary rather than enduring.

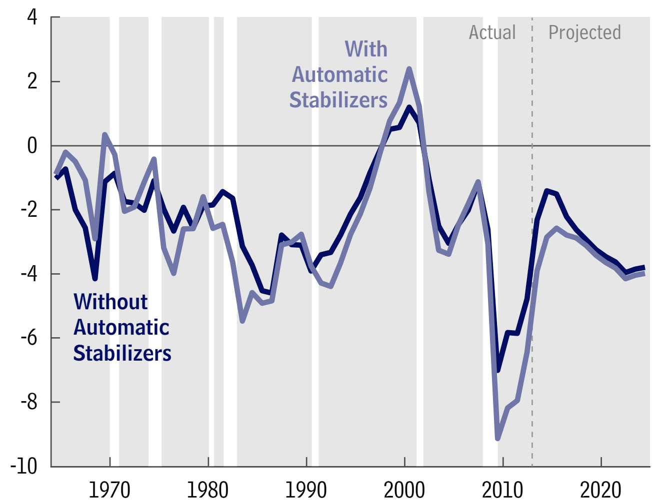
Under current law, CBO projects, the budget deficit without automatic stabilizers will equal 1.4 percent of potential GDP in fiscal year 2014, down from 2.3 percent in 2013 and much larger values in 2009 through 2012 (see Figure E-2). Essentially all of the drop between 2013 and 2014 results from a projected rise in revenues. The largest increase is in corporate income tax receipts, because certain revenue-reducing tax provisions expired at the end of 2013 and, in CBO's estimation, other factors that have held down corporate tax receipts since the recession will continue to wane (see Chapter 4 for more discussion of those factors).

After 2014, the projected budget deficit without automatic stabilizers rises, on balance, over the subsequent decade. The slight increase in 2015, from 1.4 percent to 1.5 percent of potential GDP, is due to a rise in spending that is slightly larger than the rise in revenues (both with

Figure E-2.

Budget Deficits and Surpluses With and Without Automatic Stabilizers

(Percentage of potential gross domestic product)



Sources: Congressional Budget Office; Office of Management and Budget.

Notes: Automatic stabilizers are automatic changes in revenues and outlays that are attributable to cyclical movements in real (inflation-adjusted) output and unemployment.

Potential gross domestic product is CBO's estimate of the maximum sustainable output of the economy.

the effects of automatic stabilizers excluded). Between 2015 and 2024, the projected budget deficit without automatic stabilizers rises to 3.8 percent of GDP (a figure that would be 0.2 percentage points larger were it not for shifts in the timing of certain payments that would otherwise occur on a weekend). Most of that increase can be attributed to an increase in spending, with a smaller role played by a decline in revenues (again, both without automatic stabilizers and measured as a percentage of potential GDP). The increase in spending reflects growth in interest payments and mandatory spending without automatic stabilizers that more than offsets a decline in discretionary spending (all expressed relative to potential GDP). The decline in revenues is due largely to a combination of decreases in corporate taxes and remittances from the Federal Reserve, which is mostly offset by an increase in individual income taxes (all without automatic stabilizers and expressed relative to potential GDP).

3. The estimated budgetary impact of automatic stabilizers in fiscal year 2017 is slightly larger than in subsequent years because CBO projects that the gap between GDP and potential GDP will not narrow to one-half percent of potential GDP until the last part of that year.

Why Do Budget Deficits Appear Cyclical Even After the Estimated Effects of Automatic Stabilizers Are Filtered Out?

Despite adjustments to revenues and outlays for the estimated effects of the business cycle, the estimated deficit without automatic stabilizers exhibits movements that appear to be correlated with the business cycle. In particular, the estimated deficit without automatic stabilizers tends to increase during times of recession and early in a recovery.

That pattern probably reflects several factors. One factor is that estimates of the budgetary impact of automatic stabilizers may only partly remove the effects of certain changes (such as large fluctuations in the stock market) that have not had a sufficiently regular relationship to business cycles to be viewed as mostly cyclical. Another factor is that policymakers often choose to support a weak economy by cutting taxes or increasing federal spending, both of which increase the deficit (or reduce the surplus). Such responses to recessions and high unemployment require legislation, so their budgetary effects are not automatic, and they are not viewed as automatic stabilizers. During the past several years, for example, lawmakers have enacted the American Taxpayer Relief Act of 2012 (Public Law 112-240); the Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010 (P.L. 111-312); the American Recovery and Reinvestment Act of 2009 (P.L. 111-5); the Emergency Economic Stabilization Act of 2008 (P.L. 110-343); and the Housing and Economic Recovery Act of 2008 (P.L. 111-289).